In memory of my teacher, Kurt Lewin[1]

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Zusammenfassung: *Der vorliegende Beitrag ist etwa Mitte der sechziger Jahre von Wera Mahler auf Bitte von Alfred J. Marrow für dessen Buch „The practical theorist. The life and work of Kurt Lewin" verfaßt worden und wird hier erstmals vollständig veröffentlicht. Die Lewin-Schülerin beschreibt Lewins Biographie, sein wissenschaftliches Werk und seine Persönlichkeit. Sie gibt ferner eine Wertung seiner Leistungen.*

Abstract: *The paper presented here for the first time has presumably been written in the mid-sixties on request of Alfred J. Marrow for his book „The practical theorist. The life and work of Kurt Lewin." The former student of Lewin describes Lewin's biography, his scientific contributions, and his personality. Furthermore she tries to evaluate his achievements.*

It was in the „roaring twenties" in Berlin that I – then a student of psychology – met for the first time Kurt Lewin. He was then already professor at the Friedrich Wilhelm University of Berlin where he taught till he left for the States owing to Hitler's coming to power. He worked at the Psychological Institute of the University together with Wolfgang Koehler (then director of the Institute), Max Wertheimer, von Hornbostel, Hans Rupp, Karl Duncker and Wolfgang Metzger (the latter two were then scientific assistants at the Institute). I remember clearly my first impression of Lewin which was rather a little disappointing. I went to hear his lecture about child psychology. How great was my astonishment when the professor appeared: in came a young man with a round, red-cheeked, apple-like face, very unlike the dignified picture of a German professor. At first we students were not greatly impressed with his lecture, for Lewin was in no way a polished or outstanding speaker and we were very spoiled by the excellent rhetoric of the really brilliant lectures of W. Koehler. But quickly we sensed that here was an ingenious and original mind, a creative thinker who was filled to the brim with new ideas which would spring up in the middle of a lecture and which he would immediately start developing. Again and again he would interrupt his lecture about child psychology and draw funny little „eggs" on the blackbord calling them the total psychological field or the life space; these little ovals would then be filled in with a little circle which represented the child, with plus and minus signs (the valences); arrows would appear to indicate the direction of the field forces, thick black lines representeted the barriers and quickly we were in

the midst of a conflict in the child´s life or grasped the psychological situation of reward and punishment and all this found its very concrete graphic representation in his rather clumsy little drawings on the blackboard. This was quite something new and very refreshing after the usual lectures about child psychology even when it sometimes gave us the impression of a „nice playing around" with facts and concepts. But after having studied with him some more time it soon became clear that here was something new at work which was to be taken quite seriously.

I may say without exaggeration that the lectures, study groups and seminars of Kurt Lewin belong to my profoundest experiences (and I am sure that this holds true for most of his students). Not only that they opened a new view of life to us which emerged from the background of the Gestalt psychology and was influenced by the work of scientific personalities like W. Koehler and Max Wertheimer. But beyond that we witnessed personally the rise of new ideas. And we, that is the students and pupils of Lewin, were sitting in our pews motionless as under a magic spell, in breathtaking tension whenever Lewin began to develop his train of thought. He did not really lecture, he created something new, he worked on psychological wasteland which he changed in something quite fertile. He always maintained and proved it too that it is possible to study in a most scientific and exact way psychological fields which up till then were considered to be beyond the framework of scientific research. More than once did it happen during a lecture or when Lewin conducted a seminar or discussed our experimental researches with us that he interrupted himself midway in a sentence, his eyes began to sparkle, his glance was directed inward, he forgot all about his audience and he began to think expressing his thoughts vocally; he disclosed before us a new idea which suddenly flashed into his mind in relation with the things he was speaking about. We did not dare to stir, spellbound we experienced the rare experience: to be witnesses to the „birth" of a new theory! We shall never forgot moments like these!

What was the new that Lewin contributed to psychology? I feel that the value of his scientific work shows itself essentially in three respects: 1. He gave a new basis to psychology from the noetic viewpoint as well as from the viewpoint of the theorie of science. 2. He created the scientific basis for the psychological experiment. 3. He placed its theory in a mathematical framework of concepts. Let us first consider his *new noetic and scientific basis of psychology* which Lewin elucidated particularly in his books „Gesetz und Experiment in der Psychologie" (Law and Experiment in Psychology) and „Der Übergang von der aristotelischen Denkweise zur galileischen Denkweise in Psychologie und Biologie" (The Transition of the Aristotelian Mode of Thought to the Galilean Mode of Thought in Psychology and Biology). Believing that these books are not so widely known to American psychologists, I want to explain in a few words their basic

principles. In the beginning asked Lewin the following question: Is it at all possible to determine general laws in psychology and to make experiments in order to reveal psychic life? Isn't psychology dealing with individuals who differ from one to another and would it not be impossible to find laws which have general validity for every individual? Add to this that psychology is studying phenomena of the soul which are not given to sensual perception and which are constantly changing. Isn't the behavior of the individual only accidental and therefore does not lend itself to repeating the same phenomenon or behavior twice? On the other hand is the essential criterion of the experiment just the fact that we can repeat the same phenomenon again and again. Is it at all possible to study and to explain innerpersonal processes in a quantitative and objective way exactly as the physics do? Today these questions may seem antiquated for modern psychology has since then answered them more or less satisfactorily. But when Lewin asked them in the twenties they were, at least for European scientists, daring questions. It is not so significant that he asked them and endavoured to answer them but the significance of the two above-mentioned books lies in that that he gave them the noetic and scientific basis. I personally believe that it would be a very good thing to reread these two books; rereading them may reduce the rapidly growing tendency of quantifying the human mind (thereby regrettably neglecting the qualitative aspect) which I feel is endangering our true understanding of man as a human being rather than as a robot, as an living individual existing here and now rather than reducing him to a measurable quantity, a mere set of scores whereby the living man himself gets completely lost.

Lewin asserted that we do not need a great number of similar cases in order to find general laws and to ascertain them. His point of view is besides being a formal one a psychological one and not to be taken from the physics. We do not need infer our deductions from many individuals in order to attain a general law which is valid for all the individuals who are belonging to the same species. On the contrary, the scientist has to study the single concrete case and to determine it according to its external appearance (its phenotype) and according to its genetic-conditional aspect (its genotype). Lewin bases his asssumption on the fundamental change which took place concerning the course of thought and concept formation as a consequence of the new ideas which Galilei introduced to the physics. This change of thought is revealed particularly in two regards: 1. *Changing the principle which is underlying concept formation:* That is to break loose from the Aristotelian class concept, from his static value concepts which are composed of a contrasting pair of phenomena (e.g. good-bad, normal-abnormal, white-black) whereby each member of the pair belongs to his own area which is alien to the area of the other member of the pair of concepts. Instead of

this introduced Galilei the dynamic concept of sequence to science whereby the two contrasting phenomena of a pair belong to a unified area from which they form two extreme ends. As illustration we may consider the two contrasting color concepts: black and white. According to Aristoteles they are belonging to one pair of concepts but each color exists in its own area only which is completely separated from and alien to the area of the opposite color. There is not the slightest similarity between the two. Whereas Galilei assumes that black and white belong to the same sequence , they are members of the same continuum which extends from black to white (or revers). In other words, black and white are the extreme ends of an uninterrupted sequence and in-between there are all the shades of gray which lead in infinitely little steps from the one end to the other in a continous transition. There are no boundaries between the members of the sequence. Lewin claims that in psychology too we have to use concepts of sequence instead of class concepts of pairs.

2. *The criterion for the law:* The transition from the Aristotelian mode of thought to the Galileian one changed also the criterion which determines if a certain phenomenon is a lawful one or if it is only incidental. For Aristoteles the criterion was - the perpetual and ordered repitition of the same phenomenon. (And it seems to me as if a lot of psychologists are up till now still bound to the Aristotelian belief that only a great number of cases will enable us to establish psychological laws.) According to Aristoteles the single case does not possess any lawfulness; on the contrary, law and individual are antithesis. The individual is solitary and variable and does not succumb to law. Thus it is very important to study as many similar cases as possible, to assemble a large number of them and to get their average. Not so Galilei, his criterion for the law is quite different. For him the single case, the solitary one is lawful too, just as the law of the free fall is which is even related to a case which does not exist at all (referring to the fall of an object in a vacuum). Therefore it is not important in modern physics whether a certain process occured only once or twice or whether it occures frequently or even permanently, that is the historic frequency is not decisive for the lawfulness of a case. Lewin thinks that the same holds true in psychology. In psychology too we have to pass from computing the average of many cases to the pure case: the historical frequency is only accidental. The single case too is lawful if and only if we suceed to grasp it in its totality, that is if we grasp the total concrete situation together with its specific properties. In other words, we have to describe the concrete single case according to its phenotype as well as according to its genotype. Not the frequency of its occurance is decisive but the exact description of all the forces which are operating in a given case at a given moment including the innerpersonal forces (needs) as well as the external forces (environment). This lead to Lewin´s assumption that we can predict the behavior

of a certain person provided that we know the total psychological field or the life space of the person at a given moment. It is more useful to know a single concrete case in its whole totality than to know many cases only in regard to one aspect or certain of its aspects thereby neglecting the wholeness of the person as well as the wholeness of the psychological field.

And now we may consider the second reorganization which Lewin introduced to psychological research - *the psychological experiment in the field of action and affect psychology.* His research work in this field which were partly carried out by his pupils on the basis of his ideas and under his guidance is collected in a series of studies which is called „Untersuchungen zur Handlungs- und Affektpsychologie" (Researches in the Field of Action Psychology and Affect Psychology). This series began with Lewin´s „Vorsatz, Wille und Bedürfnis" (Intention, Will and Needs) which was followed by the often cited study of Bluma Zeigarnik: „Über das Behalten erledigter und unerledigter Handlungen" (Remembering of Finished and Unfinished Tasks). The studies of this series are dealing with personality structure and with the psychological environment. They all are based on experiments and not on hypotheses only. On the other hand the hypotheses form the starting point, that is the experiments serve to ascertain if a certain hypothesis is wright or wrong and not the other way round, that is the experiments do not serve to create a hypothesis. (Of course, they may give rise to new hypotheses as well.) Nearly all of these studies are concerned with the problems of individual differences but the focus was mostly the discovering of general laws. Lewin´s aim was to predict a person´s behavior therefore his basic question in establishing general laws was always: Why occurs in a given situation at a given moment a certain behavior rather than an other one? If we know the laws which are determing a certain behavior then we shall be able to predict how a certain person will behave in a certain environment. For the behavior is the function of the person and his environment or the function of the life space ($B = f(P,E) = f(LS)$). Thus the task of the experiment is to describe behavior as a function of the total psychological field or the life space. For me the most important impact of the studies of this series on psychology is that Lewin dared to approach by means of experiments very difficult problems which up to then were thought as unapproachable in an experimental way, e.g. needs, affects like anger (Tamara Dembo), the psychological meaning of success and failure (Hoppe, Fajans), the strata of reality and irreality and so on. Other investigations of the same series deal with problems of the typology and dynamics of the environment, with psychological satiation (Karsten), with innerpersonal systems, with the personality structure of the psychopathic child and of the mentally retarded child and so on.

The formal mathematical model of Lewin´s topological and vector psychology. The third innovation and perhaps the most important one for the building up of a scientific psychology is the theoretical system which Lewin gave to his ideas. On the ground of his experimental findings based Lewin his topology and his vector psychology. His concern was to find a legitimately justified scientific approach to innerpersonal problems and „delicate" psychic phenomena which are not revealing themselves in quantified theories; on the other hand he wanted to avoid their description in a verbal form which is always given to be ambiguous and unexact. He found the solution in using mathematics particularly topological mathematics in dealing with the person and in describing the person as well as behavior in a graphic form. Whereas topological space concepts are sufficient and quite adequate for describing behavior they cannot help us to predict behavior and to explain it. So Lewin developed his vector psychology which is adequate to deal with dynamic constructs like direction, distance, force or vector, need, tension, valence. Actually began Lewin with the vector psychology and the topological psychology was the second step in his theory. The vector psychology demanded to discard the Euclidean space for psychological purposes instead of which Lewin introduced the concept of the hodological space. I remember quite vividly the first time when Lewin introduced his new notion of the hodological space in a debating session which the teaching staff and the members of the Psychological Institute at the University of Berlin used to hold twice a month: He was terribly self-conscious about his newest conception which then existed only as a tentative idea without any proves and his collegues were quite flabbergasted and very sceptical and found: this time he really overdid it, he let his ideas run away with him. - As Lewin´s topological and vector constructs are well-known I need not dwell on them here.

We see, Lewin did not acquiesce in collecting facts; simply collecting facts are apt to produce only confusion and it cannot answer the important question - what can we do to produce desirable results in concrete situations? This answer demands the building up of a theory which has to be an empirical theory rather than a speculative one. Facts without theory he felt to be without value. Therefore psychology needs constructive concepts the use of which is not only confined to a definite field (e.g. only to developmental psychology or only to social psychology) but we must be able to use these concepts in all fields of psychology. Therefore these concepts must be suitable to the representation of general laws as well as to the representation of the individual case. This system of concepts has to be broad and comprehensive enough in order to enclose different psychological phenomena as primitive physical action, emotions, learning and memory processes, thought processes, sensory perception, social relationships

and so on. This conceptual system must represent all these processes not as single and isolated facts, not as discrete facts but in conformity with their interrelations and as the expression of the concrete situation which implies a certain person in a certain environment. Shortly, these constructive concepts must involve the person as well as the environment, the law as well as the individual case. Lewin endeavoured to achieve not more and not less in his book „The Principles of Topological Psychology" which he dedicated to the Hebrew University at Jerusalem.

And this was not all what Lewin in his relatively short lifetime endeavoured and achieved. His creative power was not exhausted with this but turned to new fields. After his emigrating to the States his alert and enthusiastic mind was quickly catching up with the American spirit in the scientific and psychological field and he began to deal with problems of social psychology. He developed new ways in studying group life, group structure, group dynamics and their laws by means of experiments. Furthermore he grasped that the separation between purely theoretical psychology and applied psychology which was governing European psychology had outlived its time and that nowadays there has to be a much stronger collaboration between these two fields. And he became interested in studying industrial, political and cultural problems and to propagate action research. He covered a wide way from his beginnings (he started with an investigation of associations and the determinating tendency of Narciss Ach; his inaugural-dissertation for getting the Ph.D. in 1926 was: „Die psychische Tätigkeit bei der Hemmung von Willensvorgängen und das Grundgesetz der Assoziation" (The Psychic Activity in the Inhibition of Voluntary Processes and the Basic Law of Association). But I do not feel myself sufficiently competent to discuss Lewin´s merits in those psychological fields which are confined to the time after his moving to the States but will leave this task to those who worked with him together in the States.

Summing up I want to stress that Lewin in the course of his unfortunately rather short life dealt with many different psychological fields and succeeded to make substantial contributions to each of them enriching them with new and fruitful ideas. He was never settling down in his strivings, always full of original ideas, always changing in a steady development which was often very quick. He scarcely had developed a new idea when it was already followed and sometimes displaced by another new and even brighter idea. While his students were still grabbling to adjust themselves to his last idea he was already proceeding to a new one. I remember well enough how I once complained to him about this and asked him: „How can we students find our way in psychology if you are proceeding every moment on a new way which is sometimes even annuling the former way which we still don´t understand sufficiently?" Lewin smiled and said: „Such is

the essence of science. True science wants progress, development and development means change - what yesterday existed will not still exist tomorrow; science does not know any stagnation, everlasting change - that is science." In this sense Lewin was one of the best men in modern science: progress in perpetual change. And I fully agree with that American scientist who said: „Lewin was the creator of the most original ideas in our century since Freud."

Footnote

1 The paper published here is related to Alfred J. Marrow´s biography on Kurt Lewin „The practical theorist. The life and work of Kurt Lewin". For this book, published in 1969 (New York: Basic Books), Marrow had interviewed numerous students and colleagues of Lewin. Wera Mahler(-Franck), then living in Tel-Aviv, has presumably been asked by Marrow to answer some questions or to write a personal evaluation. The manuscript is to be found in the Alfred J. Marrow File in the Archives of the History of American Psychology, University of Akron, Ohio 44325. I gratefully acknowledge the friendly permission of Prof. John A. Popplestone and Prof. Marion White McPherson to publish the text for the first time. Many thanks also to Katrin Gaiser who typed the text. Exept of a few corrections the text is presented here unchanged, however an English and a German abstract have been added and the references have been adjusted to the style of this journal. – H. Lück (editor).

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